## **EAST Search History**

| Ref#       | Hits | Search Query   | DBs                          | Default<br>Operator | Plurals | Time Stamp          |
|------------|------|--|------------------------------|---------------------|---------|---------------------|
| S1         | 1    | ("20040135208").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR                  | OFF     | 2008/02/21<br>08:53 |
| S2         | 1    | S1 and SFQR  | US-PGPUB;<br>USPAT;<br>USOCR | OR                  | ON      | 2008/02/21<br>08:53 |
| S3         | 1    | ("20030159644").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR                  | OFF     | 2008/02/21<br>08:58 |
| S4         | 2    | (("4885257") or<br>("6277501")).PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR                  | OFF     | 2008/02/21<br>09:44 |
| <b>S</b> 5 | 2    | S4 and (boron or B or carbon or C)   | US-PGPUB;<br>USPAT;<br>USOCR | OR                  | ON      | 2008/02/21<br>09:48 |
| S6         | 388  | (257/E21.318).CCLS.  | US-PGPUB;<br>USPAT;<br>USOCR | OR                  | OFF     | 2008/02/21<br>10:52 |
| S7         | 85   | S6 and @ay<= "2002"<br>and ((carbon or C) with<br>(boron or B))  | US-PGPUB;<br>USPAT;<br>USOCR | OR                  | ON      | 2008/02/21<br>11:00 |
| S8         | 1    | ("6198157").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR                  | OFF     | 2008/02/21<br>11:04 |
| S9         | 1    | S8 and ((carbon or C) with (boron or B))   | US-PGPUB;<br>USPAT;<br>USOCR | OR                  | ON      | 2008/02/21<br>11:04 |
| S10        | 10   | ("4885257"   "4956693"  <br>"5539245"   "5554883"  <br>"5578507"   "5874348").<br>PN. OR ("6198157").<br>URPN. | US-PGPUB;<br>USPAT;<br>USOCR | OR                  | ON      | 2008/02/21<br>11:11 |
| S11        | 1    | ("6762469").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR                  | OFF     | 2008/02/21<br>11:13 |
| S12        | 1    | S11 and ((carbon or C) with (boron or B))  | US-PGPUB;<br>USPAT;<br>USOCR | OR                  | ON      | 2008/02/21<br>11:13 |
| S13        | 1    | ("5874348").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR                  | OFF     | 2008/02/21<br>11:15 |

| S14 | 0   | S13 and ((carbon or C) and (boron or B))    | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>11:16 |
|-----|-----|---|------------------------------|----|-----|---------------------|
| S15 | 1   | ("5578507").PN.                             | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>11:17 |
| S16 | 1   | S15 and ((carbon or C) and (boron or B))    | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>11:17 |
| S17 | 78  | (257/375).OOLS.                             | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>13:03 |
| S18 | 19  | S17 and ((carbon or C) with (boron or B))   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>13:03 |
| S19 | 437 | (257/607).OCLS.                             | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>13:05 |
| S20 | 113 | S19 and ((carbon or C) with (boron or B))   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>13:05 |
| S21 | 72  | S20 and @ay <= "2002"                       | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>13:06 |
| S22 | 1   | ("20030159644").PN.                         | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>13:30 |
| S23 | 1   | S22 and ((carbon or C)<br>and (boron or B)) | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>13:30 |
| S24 | 1   | S22 and ((carbon or C)<br>and (boron or B)) | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>13:30 |
| S25 | 1   | SFQR adj value with boron with carbon       | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>13:36 |
| S26 | 9   | SFQR adj value with (Si<br>or silicon)      | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>13:37 |
| S27 | 1   | ("6198157").PN.                             | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>13:42 |
| S28 | 1   | S27 and concentration                       | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>13:43 |

| S29 | 10 | ("4885257"   "4956693"  <br>"5539245"   "5554883"  <br>"5578507"   "5874348").<br>PN. OR ("6198157").<br>URPN. | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>13:45 |
|-----|----|--|------------------------------|----|-----|---------------------|
| S30 | 7  | S29 and ((carbon or C) with (boron or B))  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>13:45 |
| S31 | 3  | S29 not S30  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>13:47 |
| S32 | 1  | ("5578507").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>13:49 |
| S33 | 1  | S32 and concentration  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>13:49 |
| S34 | 1  | ("5734195").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>13:55 |
| S35 | 1  | S34 and concentration  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>13:55 |
| S36 | 1  | S34 and B  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>13:58 |
| S37 | 1  | S34 and B  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>13:58 |
| S38 | 1  | ("6458688").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>14:08 |
| S39 | 1  | \$38 and (mirror or polish \$3)  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>14:08 |
| S40 | 1  | \$38 and (boron or B)  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>14:09 |
| S41 | 1  | ("5453385").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>14:23 |
| S42 | 1  | S41 and concentration  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>14:23 |
| S43 | 1  | ("6812523").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>14:24 |

| S44 | 1  | S43 and concentration   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>14:24 |
|-----|----|---|------------------------------|----|-----|---------------------|
| S45 | 1  | ("6153920").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>14:25 |
| S46 | 1  | S45 and concentration   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>14:25 |
| S47 | 1  | ("6043139").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>14:27 |
| S48 | 1  | S47 and concentration   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>14:27 |
| S49 | 1  | ("6642096").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>14:29 |
| S50 | 0  | S49 and concentration   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>14:29 |
| S51 | 53 | (CZ with silicon) with ((boron or B) with concentration)                        | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>14:30 |
| S52 | 27 | \$51 and @ay <= "2002"  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>14:31 |
| S53 | 1  | ("6478883").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>14:36 |
| S54 | 1  | S53 and concentration   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>14:36 |
| S55 | 20 | (Czochralski with silicon)<br>with ((boron or B) with<br>concentration) not S51 | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>14:37 |
| S56 | 1  | \$53 and ((boron or B) with concentration)                                      | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>14:38 |
| S57 | 1  | ("6277501").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>14:48 |
| S58 | 1  | S57 and ((boron or B) with concentration)                                       | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>14:48 |
| S59 | 1  | ("6165872").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>14:53 |

| S60 | 1     | S59 and ((boron or B) with concentration)                                  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>14:53 |
|-----|-------|--|------------------------------|----|-----|---------------------|
| S61 | 1     | ("6162708").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>14:55 |
| S62 | 1     | S61 and ((boron or B) with concentration)                                  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>14:55 |
| S63 | 11    | S55 and @ay <= "2002"  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>14:59 |
| S64 | 1     | ("6897084").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>15:02 |
| S65 | 1     | S64 and ((boron or B) with concentration)                                  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>15:02 |
| S66 | 9     | dornberger.in. and (Si or silicon) and (B or boron)                        | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>15:04 |
| S67 | 2     | dornberger.in. and (Si or silicon) and ((B or boron) with concentration)   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>15:05 |
| S68 | 1     | S22 and ((B or boron) with concentration)                                  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>15:06 |
| S69 | 13507 | (B or boron) with high with concentration                                  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>15:12 |
| S70 | 1596  | (B or boron) with high with concentration with (Si or silicon)             | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>15:13 |
| S71 | 1058  | S70 and @ay <= "2002"  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>15:13 |
| S72 | 538   | (B or boron) with high with concentration with dop\$3 with (Si or silicon) | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>15:19 |
| S73 | 375   | S72 and @ay <= "2002"  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>15:20 |
| S74 | 1     | ("6454854").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>15:44 |
| S75 | 1     | S74 and (B or boron) with concentration                                    | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>15:44 |

| S76         | 1   | ("20020179243").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>15:46 |
|-------------|-----|--|------------------------------|----|-----|---------------------|
| S77         | 1   | S76 and (B or boron) with concentration  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>15:46 |
| S78         | 1   | ("20020127820").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>15:48 |
| S79         | 1   | S78 and (B or boron) with concentration  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>15:48 |
| S80         | 1   | ("20010019153").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/21<br>15:59 |
| S81         | 1   | S80 and (B or boron) with concentration  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>15:59 |
| S82         | 540 | ((CZ or Czochralski) with<br>silicon) and ((boron or B)<br>with concentration) not<br>S51 not S55        | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>16:07 |
| S83         | 346 | S82 and @ay <= "2002"  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>16:08 |
| S84         | 310 | ((CZ or Czochralski) with silicon) and (boron with concentration) not S51 not S55                        | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>16:08 |
| <b>S</b> 85 | 206 | S84 and @ay <= "2002"  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/21<br>16:08 |
| S86         | 1   | ("20020037632").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/22<br>08:45 |
| S87         | 1   | ("20020123167").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/22<br>09:18 |
| S88         | 1   | ("6198157").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2008/02/22<br>09:52 |
| S89         | 0   | S88 and (SiGe or (silicon adj germanium))  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/22<br>09:52 |
| S90         | 866 | ((Si or silicon) with substrate) with (SiGe or (silicon adj germanium)) with epitax\$3 and @ay <= "2002" | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2008/02/22<br>10:00 |

| S91  | 20  | ((Si or silicon) with substrate with (B or boron) with dop\$3) with (SiGe or (silicon adj germanium)) with epitax \$3 and @ay <= "2002"        | US-PGPUB;<br>USPAT;<br>USOCR | OR | MON  | 2008/02/22<br>10:01 |
|------|-----|--|------------------------------|----|------|---------------------|
| S92  | 176 | wafer adj bonding with (Si or silicon) with (silicon adj oxide or silicon adj dioxide or SiO or "SiO.sub. x" or "SiO.sub.2") and @ay <= "2002" | US-PGPUB;<br>USPAT;<br>USOCR | OR | "MON | 2008/02/22<br>11:54 |
| S93  | 1   | ("20040135208").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF  | 2008/08/27<br>16:29 |
| S94  | 1   | S93 and carbon   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON   | 2008/08/27<br>16:29 |
| S95  | 1   | ("20040135208").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF  | 2009/03/10<br>10:11 |
| S96  | 1   | S95 and carbon adj<br>concentration  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON   | 2009/03/10<br>10:12 |
| S97  | 1   | S95 and substrate with carbon adj concentration  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON   | 2009/03/10<br>10:12 |
| S98  | 1   | S95 and carbon with dop<br>\$3   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON   | 2009/03/10<br>10:16 |
| S99  | 1   | ("20040135208").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF  | 2009/03/10<br>11:10 |
| S100 | 1   | S99 and CZ   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON   | 2009/03/10<br>11:10 |
| S101 | 1   | ("6365461").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF  | 2009/03/10<br>13:27 |
| S102 | 0   | S101 and carbon  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON   | 2009/03/10<br>13:27 |
| S103 | 1   | ("6458688").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF  | 2009/03/10<br>13:28 |
| S104 | 0   | S103 and carbon  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON   | 2009/03/10<br>13:28 |

| S105 | 1 | ("5759908").PN.                          | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2009/03/10<br>14:18 |
|------|---|--|------------------------------|----|-----|---------------------|
| S106 | 1 | ("20030159644").PN.                      | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2009/03/10<br>14:21 |
| S107 | 0 | S106 and carbon                          | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2009/03/10<br>14:21 |
| S108 | 1 | ("6277501").PN.                          | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2009/03/10<br>15:13 |
| S109 | 1 | S108 and (boron or B) with concentration | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2009/03/10<br>15:14 |
| S110 | 1 | S108 and epitax\$3                       | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2009/03/10<br>17:25 |
| S111 | 1 | S108 and epitax\$3 with (Si or silicon)  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2009/03/10<br>17:28 |

## 3/10/2009 6:00:07 PM

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